**Agenda**

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| Start of Meeting | September 10 4PM  Library Conference Room  Web-Ex (check email for join code) |
| Review Psyche Mission | Actions:   * Review Document Sent By Dr. Bowman * Review Powerpoint on Psyche Mission and Purpose   + Take Notes |
| Review Questions for Client | Actions:   * Use Question Document on Drive |
| Future Meeting | Bi-Weekly Meetings  Tuesday’s 4PM  **Next Meeting: September 24, 2019** |

**Notes:**

NASA Psyche Mission

* Officially named Cobalt Class
* Mission Logo
  + The core of a planet and the material coming off of it
* Watch Video on Powerpoint given by Dr. Bowman
* Mission Introduction Presentation @ ASU
  + October 4th 1 PM? (check time with Dr. Bowman)

Psyche Information

* Is currently on the asteroid belt between Mars and Jupiter
* The Size of the asteroid is approximately the size between Phoenix and Flagstaff. (about the length of Massachusetts)
* Hypothesized Nickel-Iron Core
* Spacecraft will be an orbiter that will not land directly on the asteroid.
  + Launch in 2022
  + Arrive at Psyche at 2026
* For Reports - USE PLUS SHAPED SOLAR PANEL IMAGES

Team Guidelines

* Student collaborations of the team
* Protect info not shared publicly
  + Contact Dr. Bowman if contacted by any type of media before sharing Psyche information to protect what is not publically shared already
  + Website needs to be approved through Dr. Bowman
    - Start website soon so she has enough time to review it

Sampling System

* Testing
  + ASU has example surfaces of hypothesized asteroid composition to test our prototypes on
* Requirements
  + Can it collect Samples from all types of materials
  + Customer Requirements:
    - Solution created that actually works
    - Solution works on multiple different surfaces
  + Things to consider
    - Gravitational Pull on Asteroid (minimal)
    - Temperature of Asteroid (far from the sun)
    - Travel time to the asteroid
      * 3 ½ years
    - Psyche Orbital Rotation Time around the Sun
      * 4 years and 12 minutes
    - Psyche Asteroid rotation
      * 4.196 hours
    - Gravitational Orbit of the Asteroid
    - Asteroid Size - Crater sizes
  + Review past Mars Rover and Opportunity
    - See its requirements
    - How their sampling systems were created
    - What their sampling systems are like
    - Size ranges of those sampling systems

**ACTIONS**

* Ask Dr. Oman about Office Address to send Psyche Mission welcome packets to (for both Psyche teams) - Emailed
* Send team pictures to Dr. Bowman

**DISCLAIMER**

This work was created in partial fulfillment of Northern Arizona University’s Capstone Course “ME 476C″. The work is a result of the Psyche Student Collaborations component of NASA’s Psyche Mission ([https://psyche.asu.edu](https://psyche.asu.edu/)). “Psyche: A Journey to a Metal World” [Contract number NNM16AA09C] is part of the NASA Discovery Program mission to solar system targets. Trade names and trademarks of ASU and NASA are used in this work for identification only. Their usage does not constitute an official endorsement, either expressed or implied, by Arizona State University or National Aeronautics and Space Administration. The content is solely the responsibility of the authors and does not necessarily represent the official views of ASU or NASA.